# ON SOME AUSTRALIAN AND TASMANIAN MOLLUSCA, WITH THEIR SYNONYMS.

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In this paper I have endeavoured to correct and clear up the specific names of numerous species that have been described by the late Rev. J. E. Tenison-Woods, Mr. W. F. Petterd and myself.

A large number of Tasmanian species are identical with those found in South Australia, Victoria, and on the east coast of New South Wales.

I am under very great obligation to my friends Lieutenant C. E. Beddome and Miss Mary Lodder of Tasmania for their kindness in forwarding me their type specimens for examination and comparison with those of Australia.

1. Columbella (Atilia) attenuata, Angas.

1871. *Columbella (Mitrella) attenuata*, Angas, Proc. Zool. Soc. p. 14, Species 4, pl. 1, fig. 4.

1883. *Columbella (Atilia) attenuata*, Tryon, Manual of Conchology, Vol. v. p. 151, pl. 53, fig. 18.

1884. *Terebra Beddomei*, Petterd, Journal of Conchology, Vol. iv. No. 5, p. 142, No. 28.

1885. *Terebra Beddomei*, Tryon, Man. Conch. Vol. vii. p. 40.

*Hab.*—Sow and Pigs Reef, Port Jackson, 4 fathoms, Green Point, 8 fathoms, sand and shells *(J. Brazier*, 1864); Middle Harbour, in shell sand and shingle, Maroubra and Long Bays, near Sydney *(A. U. Henn);* Brown's River, Tasmania *(C. E. Beddome and W. F. Petterd).*

This is another variable species sometimes of a shining brown with a pale band at the sutures; others are finely mottled with network. Having Mr. Petterd's types before me from Mr. Beddome, I find that *Columbella attenuata*, Angas, is identical with Petterd's *Terebra Beddomei*.

2. Natica Beddomei, R. M. Johnston.

1877. *Natica polita*, Tenison-Woods, Proc. Royal Soc. Tasmania, "Census; with Brief Description of the Marine Shells of Tasmania," p. 32 (non *Natica polita*, 1875).

1884. *Natica Beddomei*, Johnston; Tate, Proc. Royal Soc. Tasmania, p. 208.

1884. *Natica Beddomei*, Johnston, Proc. Royal Soc. Tasmania, p. 222.

1886. *Natica Beddomei*, Johnston; Tryon in Man. Conch, Vol. viii. p. 54.

1886. *Natica effossa*, Boog Watson, Report on the Gasteropoda, Voyage of H.M.S. "Challenger," Zoology, Vol. xv. pp. 439, 704-706, Pl. xxviii. fig. 3.

1893. *Natica Beddomei*, Tate, Proc. Royal Soc. South Australia, Vol. xvii. p. 325.

1893. *Natica Beddomei*, Adcock, "A Hand List of the Aquatic Mollusca of South Australia," p. 6, No. 168.

*Hab.*—Bruni Island, Tasmania *(Rev. H. D. Atkinson, W. Legrand, W. F. Petterd, C. E. Beddome)*: South Australia *(Professor Tate)*: Station 161, April 1st, 1874, lat. 38° 22′ 30″ S., long. 114° 36′ 30″ E., off the entrance to Port Phillip, Melbourne 33 fathoms, sand; Station 163 B, June 3, 1874, lat. 33° 51′ 15″ S., long. 151° 22′ 15″ E.; Port Jackson, Sydney, 30 to 35 fathoms, hard ground bottom; temperature 63° Fahr. *(H.M.S. Challenger)*: off Port Jackson Heads, 5 miles due east, 45 fathoms, June 3, 1874, found with *Typhis Cleryi*, Sowerby *(J. Brazier)*.

The first specimen that I saw of this species was sent to me by Mr. W. F. Petterd as far back as 1870, and since that I have

seen numerous examples from Tasmania. The Rev. Tenison-Woods described a fossil form from Table Cape, Tasmania, in 1875 under the name of *Natica polita:* he had seen the species now known as *Natica Beddomei*, but erroneously supposed the recent form to be the same as the fossil. Both Professor Tate and Mr. Johnston agree that the recent form should be separated from the fossil; both species have a very deep suture, but in the living mature form the number of whorls is invariably $3\frac{1}{2}$ to 4. The only figure of this species is that given by Dr. Boog Watson in the "Challenger" Report, Vol. xv. Pl. XXXVII. fig. 3, under the name of *Natica effossa*. There appear to be some discrepancies in the "Challenger" Reports regarding the various depths; for instance, we find Port Jackson, Sydney, 30 to 35 fathoms; these depths are outside of Port Jackson Heads. Very few writers trouble themselves to look up the Admiralty Charts and prick off the latitude and longitude.

3. Terebra (Eurya) Harrisoni, Tension-Woods.

1863. *Euryta pulchella*, Ad. and Angas, Proc. Zool. Soc. p. 418, pl. 37, fig. 14 (non *Terebra pulchella*, Desh.).

1865. *Euryta pulchella*, Angas, Proc. Zool. Soc. "Molluscan Fauna of S.A." p. 169, No. 81.

1875. *Euryta Brazieri*, Angas, Proc. Zool. Soc. p. 390, Pl. XLV. fig. 5, 5a (non *Terebra Brazieri*, 1871).

1877. *Mangelia Harrisoni*, Tenison-Woods, Proc. Royal Soc. Victoria, p. 56.

1884. *Daphnella Harrisoni*, Tryon, Man. Conch. Vol. vi. p. 306.

1885. *Terebra (Euryta) Angasi*, Tryon, *loc. cit.* Vol. vii. p. 38, pl. 12, fig. 26.

1886. *Terebra (Euryta) Angasi*, Tryon; Tate in Southern Science Record, p. 4.

1887. *Pleurotoma (Cithara) Harrisoni*, Gatliff in Victorian Naturalist, "List of some of the Shells of the Marine Mollusca found on the Victorian Coast," Vol. iv. No. 4, p. 59.

1893. *Euryta Angasi*, Tryon; Adcock, "A Hand List of the Aquatic Mollusca of S.A." p. 5, No. 125.

*Hab.*—Rapid Bay, South Australia, deep water *(G. French Angas);* South Australia *(Professor Tate and Adcock);* off Port Jackson Heads, 25 fathoms, sand floor *(J. Brazier*, 1874): Clark Island, Victoria *(Tenison-Woods);* Victoria *(J. H. Gatliff);* Port Stephens, N.S.W., on the ocean beaches after heavy weather; and in beach shingle and sand at Edward's Beach, Middle Harbour.

This species was first named by Adams and Angas *Euryta pulchella*; the specific name being already in use in *Terebra* by Deshayes, Mr. Angas in 1875 redescribed it from specimens that I sent him, under the name of *E. Brazieri*, he having already in 1871 named a *Terebra Brazieri*. Tenison-Woods in 1877 called it *Mangelia Harrisoni*. Mr. Tryon in 1885 renamed it *Terebra (Euryta) Angasi*. Mr. J. H. Gatliff of Melbourne sent me specimens in 1885, to have the name confirmed; at the time I wrote him out the history of the species, but in his list of the Victorian Mollusca he places it in *Pleurotoma;* it should be placed in the subgenus *Euryta* of *Terebra;* it is named in the Melbourne Museum by Tenison-Woods *Mangelia Harrisoni;* I have compared it with specimens from New South Wales. Woods' specific name must stand for this species.

4. Triforis scitulus, A. Adams.

1851. *Triforis scitulus*, A. Ad., Proc. Zool. Soc. p. 278.

1878. *Triforis fasciata*, Tenison-Woods, Proc. Roy. Soc. Tasmania, p. 34.

1887. *Triforis fasciata*, Tryon, Man. Conch. Vol. ix. p. 190.

1887. *Triforis scitulus*, Tryon, *loc. cit.* Vol. ix. p. 191.

1893. *Triforis scitula*, Adcock, A "Hand List of the Aquatic Mollusca of S.A." p. 7, No. 241.

*Hab.*—Port Lincoln, South Australia *(Cuming in Brit. Museum);* Cook's landing place, south side of Botany Bay, found under stones at low water and in shell sand *(Brazier*, 1864);

Middle Harbour, in shell sand and beach shingle *(A. U. Henn and Brazier)*: North Tasmania *(Rev. H. D. Atkinson)*: South Australia *(Professor Tate and D. J. Adcock)*.

A white and brown species, with the middle row of nodules very prominent; though Mr. Angas had a large number of specimens from me, and duly returned some named *T. scitulus*, he never entered it in his List of Port Jackson Mollusca. The species is somewhat common on the coast of N.S.W. *T. fasciata*, Tenison-Woods, now before me from Mr. Beddome cannot be separated from the above species.

5. Rissoia (Apicularia) Strangei, Brazier.

1884. *Rissoa lineata*, Petterd, Journ. Conch. Vol. iv. No. 5, p. 137, Species 8 [January] (non *lineata*, Risso, 1826).

1894. *Rissoia (Apicularia) Strangei*, Brazier, Proc. Linn. Soc. N.S.W. Vol. ix. (Series 2nd) p. 173, Pl. xiv. fig. 11 (not 12 as quoted in the text).

*Hab.*—North Coast of Tasmania, on the underside of exposed rocks at low water *(W. F. Petterd)*: Green Point, Watson's Bay, Port Jackson, found in an old bottle and under stones at low water spring tide *(A. U. Henn)*; Edward's Beach, Middle Harbour, in shell sand and shingle *(Brazier)*.

In the early part of the year I described this species under the name of *Rissoia Strangei*. Through the kindness of Mr. Beddome who sent me the greater part of his Tasmanian Mollusca to examine and compare with those of New South Wales, I found while comparing mine with Mr. Petterd's types that *R. lineata* is identical with my *R. Strangei*. The name of *R. lineata* being preoccupied by Risso in 1826, *Strangei* will be retained for the Tasmanian and Australian species.

6. Rissoia (Amphithalamus) Jacksoni, Brazier.

1886. *Rissoa (Scrobs) badia*, Watson, Report on the Gasteropoda, Voyage of H.M.S. "Challenger," Zoology, Vol. xv. p. 612, Species 47, pl. 46, fig. 3 (non *Rissoa badia*, Petterd).

*Hab.*—Sow and Pigs Reef, Port Jackson, 4 fathoms, sand and broken shells; Cook's landing place, south side of Botany Bay, in shell sand and beach shingle, not common *(J. Brazier*, 1864); Middle Harbour, under stones at low water; Green Point, Watson's Bay, under stones and in shell sand *(A. U. Henn).*

The name *badia* having been already in use by Mr. Petterd in 1884 for a Tasmanian species, I have changed Dr. Boog Watson's name to *Rissoia Jacksoni*, after Sir George Jackson to whom the Navigator Captain Cook named Port Jackson.

7. Rissoia (Amphithalamus) olivacea, Dunker.

1867. *Alvania olivacea*, Dunker, Novara Expedition (Mollusca), p. 11, Pl. II. fig. 14.

1875. *Diala tumida*, Tenison-Woods, Proc. Roy. Soc. Tasmania, p. 147.

1884. *Rissoa Diemenensis*, Petterd, Journ. Conch. Vol. iv. No. 5, p. 138, Species 13.

1887. *Litiopa (Diala) tumida*, Tryon, Man. Conch. Vol. ix. p. 283.

1887. *Rissoia olivacea*, Tryon, *loc. cit.* Vol. ix. p. 339, pl. 66, fig. 43.

1887. *Rissoia Diemensis*, Tryon, *loc. cit.* Vol. ix. p. 368.

1894. *Rissoia (Amphithalamus) olivacea*, Dunker; Henn, Proc. Linn. Soc. N.S.W. (2) Vol. ix. p. 174, No. 71.

*Hab.*—Sydney, Manly Beach and Botany Bay *(Frauenfeld):* Swansea, Tasmania, rare *(Legrand);* Table Cape and Tamar Heads, Tasmania *(W. F. Petterd):* Green Point, Watson's Bay, and Middle Harbour, Port Jackson *(A. U. Henn);* Long Bay, South of Sydney, in shell sand and alive under stones, low water.

It is very strange that Tenison-Woods should have called this a *Diala* when it is a *Rissoia;* and Mr. Petterd described it under the name of *Rissoa Diemenensis.* Having both the Tasmanian species before me I find that they are merely varieties of *Rissoia*

*olivacea*, Dunker, the varieties of which are very numerous in Port Jackson and on the coast in the living state. A number of the Tasmanian species have been described from beach worn and faded specimens.

8. Rissoia (Amphithalamus), Petterdi, Brazier.

1884. *Rissoa pulchella*, Petterd, Journ. Conch. Vol. iv. No. 5, p. 138, Species 14 (non *Rissoa pulchella*, Risso, nec *pulchella*, Philippi, nec *pulchella*, Danilo and Sandri).

1887. *Rissoia pulchella*, Tryon, Man. Conch. Vol. ix. p. 368.

*Hab.*—North Coast of Tasmania and Isles in Bass's Straits *(W. F. Petterd)*; Cook's landing place, south side of Botany Bay, under stones and in shell sand among the rocks *(J. Brazier*, 1864).

A very pretty little species; when in good condition of a fine bright brown, when sea worn of a dirty pale colour.

The specific name *pulchella* is preoccupied by Philippi in 1836, by Risso in 1826 for *Rissoia auriscalpium*, Linné, and by Danilo and Sandri for *Rissoia decorata*, Philippi, 1846; I take great pleasure in renaming it after my friend, correspondent, and fellow voyager, Mr. William Frederick Petterd of Tasmania.

9. Rissoia (Setia) Flamia, Beddome.

1882. *Rissoa (Setia) flamia*, Beddome, Proc. Roy. Soc. Tasmania, p. 169, No. 16.

1883. *Rissoia (Setia) Sophiæ*, Brazier MSS.

1887. *Rissoia (Setia) flamia*, Tryon, Man. Conch. Vol. ix. p. 359.

1894. *Rissoia (Setia) Sophiæ*, Braz.; Henn, Proc. Linn. Soc. N.S.W. (2), Vol. ix. p. 174, No. 74.

*Hab.*—Blackman's Bay, Tasmania, 7 fathoms *(C. E. Beddome)*; Point Piper, Port Jackson, living under stones *(Brazier)*; Green Point, Watson's Bay, Port Jackson, under stones and in shell sand *(A. U. Henn)*.

A minute turbinated shell, white with red diagonal flames, and about one of the most common species that we have. A large number were sent to Mr. Angas as far back as 1876 with other species; about the time I named this in MS., I received sea-worn specimens from Mr. Petterd; having Mr. Beddome's types before me the matter is now at rest.

10. Cirsonella Weldi, Tenison-Woods.

1876. *Cyclostrema Weldi*, Tenison-Woods, Proc. Roy. Soc. Tasmania, p. 147, No. 43.

1876. *Cyclostrema immaculata*, Tenison-Woods, *loc. cit.* p. 148, No. 46.

1877. *Cirsonella australis*, Angas, Proc. Zool. Soc. p. 39, Pl. v. fig. 16.

1888. *Cyclostrema immaculata*, Tenison-Woods; Tryon in Man. Conch. Vol. x. p. 95.

1888. *Cyclostrema (Tubiola) Weldii*, Tryon, *loc. cit.* Vol. x. p. 95, pl. 33, fig. 11.

1888. *Teinostoma (Cirsonella) australis*, Tryon, *loc. cit.* Vol. x. p. 107, pl. 35, figs. 83, 84.

1889. *Cyclostrema australis*, Whitelegge, "List of the Marine and Fresh Water Invertebrate Fauna of Port Jackson and Neighbourhood," Journ. and Proc. Roy. Soc. New South Wales, Vol. xxiii. p. 268, No. 555.

1894. *Teinostoma (Cirsonella) australe*, Henn, Proc. Linn. Soc. N.S.W. (series 2nd) Vol. ix. p. 175, No. 88.

*Hab.*—Long Bay, South Tasmania, 20 fathoms *(Rev. H. D. Atkinson);* Long Bay and Blackman's Bay, Tasmania *(W. F. Petterd);* Botany Bay, in shell sand, Sow and Pigs Reef, Port Jackson, 4 fathoms *(J. Brazier*, 1864); Green Point, Watson's Bay, found in an old bottle *(A. U. Henn.)*.

This is another species described twice by the Rev. Tenison-Woods, as *Cyclostrema Weldi* and *immaculata;* and by Mr. Angas

as *Cirsonella australis*. Some specimens when in good condition show from two to three fine spiral raised lines round the narrow umbilicus; in others they are wanting. The large number of Tasmanian specimens kindly lent to me by Mr. Beddome have cleared up many points between the Tasmanian and Australian species. Evidently Tenison-Woods had very few specimens at his disposal, for I am quite sure he would never otherwise have made two species. His name of *C. Wedi* has priority over Angas' *C. australis*.

11. Puncturella Harrisoni, Beddome.

1882. *Cemori Harrisoni*, Beddome, Proc. Roy. Soc. Tasmania, p. 168, No. 11.

1890. *Puncturella Harrisoni*, Pilsbry, in Tryon, Man. Conch. Vol. xii. p. 294.

1894. *Puncturella Henniana*, Brazier, Proc. Linn. Soc. N.S.W. Vol. ix. (2nd series) p. 177, No. 107, Pl. xiv. fig. 14.

*Hab.*—Off Old Station, Brown's River Road, 7 fathoms; Bruni Island, South Tasmania *(C. E. Beddome)*: Green Point, Watson's Bay, Port Jackson, two specimens found in an old bottle; Edward's Beach, Middle Harbour, in shell sand and beach shingle *(A. U. Henn)*; off Green Point in 8 fathoms, and Sow and Pigs Reef, 4 fathoms, on dead valves of *Trigonia Lamarckii*, Gray (*J. Brazier*, 1864).

Having Mr. Beddome's types before me I find them to be identical with my species, his name having priority.

12. Choristodon rubiginosum, A. Ad. and Angas.

1863. *Naranio rubiginosa*, A. Ad. and Angas, Proc. Zool. Soc. p. 425, pl. 37, fig. 17.

1867. *Choristodon rubiginosum*, Angas, Proc. Zool. Soc. p. 924, No. 78.

1884. *Clementia Tasmanica*, Petterd, Journ. Conch. Vol. iv. No. 5, p. 145, Species 36.

1892. *Naranio rubiginosa*, Tate, Proc. Roy. Soc. South Australia, p. 134.

1893. *Naranio rubiginosa*, Adcock, "A Hand List of the Aquatic Mollusca of S.A." p. 12, No. 66.

*Hab.*—Watson's Bay, Port Jackson, dredged in 4 fathoms enclosed in a nodule of clay *(G. French Angas);* off Vaucluse Bay, Port Jackson, 12 fathoms, muddy bottom, fine living specimens found in hard clayey mud, two specimens got crushed with the dredge (*J. Brazier*, 1866): Aldinga Bay, very rare and small, in shell sand (*Professor R. Tate*); dredged in Hardwicke Bay, Spencer Gulf, S.A., from eight to ten fathoms, four perfect shells, and five single valves (*Dr. Verco*): dredged off Long Bay and Brown's River, in about 7 fathoms (*W. F. Petterd*): Frederick Henry Bay, South Tasmania (*Miss Lodder*).

The Tasmanian specimen submitted to me by Miss Lodder was described by Mr. Petterd as *Clementia Tasmanica;* it is identical with *Choristodon rubiginosum*, A. Ad. and Angas. Last year (1893) Miss Lodder sent me a bivalve to determine for her; it also was *C. rubiginosum*, Ad. and Ang. At the time I did not make a note of the locality sent with the specimen. The southern specimens do not differ from the Port Jackson ones; the colour is the same, rayed with brown and purple at the umbones. Of the four specimens I obtained in 1866, one was sent to Mr. Angas with a lot of other Mollusca, but evidently overlooked by him.

The Genus *Choristodon* was founded by Jonas, 1844; H. and A. Adams, 1857; *Naranio*, Gray, 1853, is a synonym.